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10/724,106	12/01/2003	Robert C. Lovell JR.	INP0006-US	1422

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EXAMINER

CHAN, RICHARD

ART UNIT

PAPER NUMBER

2618

DATE MAILED: 05/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/724,106	Applicant(s) LOVELL ET AL.	
	Examiner Richard Chan	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/01/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/03/06 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date: <u>12/03/06</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1,3-7, 9 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by McIntosh (US 2003/0171119 A1)

With respect to claim 1, McIntosh discloses the method for routing a message from a first mobile **136** station to a second mobile station **144**, comprising: receiving a routing request from a third party for routing a message from the first mobile station to the second mobile station, the routing request being received by an intermediary; determining to which carrier the second mobile station subscribes; creating an identifier based on the carrier to which the second mobile station subscribes; **[0033]** and returning a routing response from the intermediary to the third party for routing the message from the first mobile station to the second mobile station, the routing response including the identifier and information identifying the intermediary, from the point of view of the third party, as a mobile switching center **114**. **[0032-0035]**

With respect to claim 3, McIntosh discloses the method according to claim 1, wherein determining to which carrier the second mobile subscribes includes performing a lookup of the second mobile station against a database 128 including a plurality of mobile stations associated with a plurality of carriers so that the intermediary functions as a virtual home location register. [0034]

With respect to claim 4, McIntosh discloses the method according to claim 1, wherein the second mobile station is a domestic mobile station, and the carrier to which the second mobile station subscribes and the intermediary are in geographic proximity. [Fig.3]

With respect to claim 5, McIntosh discloses the method according to claim 4, wherein the first mobile station is an international mobile station and a carrier associated with the first mobile station is on a Global System for Mobile Communication (GSM) network. [0035]

With respect to claim 6, McIntosh discloses the method according to claim 1, wherein the first mobile station is on a GSM network and the third party communicates with the intermediary via a Signaling System 7 (SS7) network Fig.4. [0027]

With respect to claim 7, McIntosh discloses the method for routing a Global System for Mobile Communication (GSM) **[0035]** Mobile Application Part (MAP) Send Routing Info for Short Message (SRI for SM) message from a third party in connection with sending a message from a first mobile station on a GSM network to a second mobile station, **[0038]** comprising: receiving a routing request from the third party for routing a message from the first mobile station to the second mobile station, the routing request being received by an intermediary via a SS7 network; **[0027]** determining to which carrier the second mobile station subscribes; creating an identifier based on the carrier to which the second mobile station subscribes; **[0033]** and returning a routing response from the intermediary to the third party for routing the message from the first mobile station to the second mobile station, the routing response including the identifier and information identifying the intermediary, from the point of view of the third party, as a mobile switching center 114. **[0035]**

With respect to claim 9, McIntosh discloses the method according to claim 7, wherein determining to which carrier the second mobile subscribes includes performing a lookup of the second mobile station against a database **128** including a plurality of mobile stations associated with a plurality of carriers, whereby the intermediary functions as a virtual home location register. **[0034]**

With respect to claim 10, McIntosh discloses the method according to claim 7, wherein the second mobile station is a domestic mobile station and the carrier to which the second mobile station subscribes and the intermediary are in geographic proximity. **[0034]**

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2, 8, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over McIntosh (US 2003/0171119 A1) in view of Lam (US 6,782,276).

With respect to claim 2 and 8, McIntosh discloses the method according to claim 1 and 7, however does not disclose wherein the mobile switching center is a virtual mobile switching center.

The Lam reference however discloses wherein a mobile switching center is a virtual mobile switching center **31** that is implemented within a SS7 protocol environment. **(Col.4 lines 12-30)**

It would have been obvious to one of ordinary skill in the art to implement the Virtual Mobile Switching Center technique as described by Lam with the method of routing a message as disclosed by McIntosh in order to effectively distribute message requests between multiple end user devices with each other.

With respect to claim 11, McIntosh discloses an intermediary comprising: a gateway interface device including a database **128** storing a plurality of mobile station

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identifiers associated with a plurality of carriers, the gateway interface device being configured to perform a lookup to determine to which carrier the second mobile subscribes when provided a specific mobile station identifier and to return the carrier associated with the specific mobile station identifier, the gateway interface device being configured to create an identifier based on the associated carrier and to provide information to the virtual network device including the identifier based on the associated carrier and information identifying the intermediary **[0034]**, from the point of view of third parties, as a mobile switching center **114**, however the McIntosh reference does not disclose specifically wherein a virtual network device configured to receive routing requests from third parties for routing a message from one mobile station to another mobile station and to return routing responses to the third parties; and wherein the virtual network device and the gateway interface device communicate such that, from the point of view of third parties, the intermediary appears to operate a HLR and a MSC.

The Lam reference however discloses specifically wherein a virtual network device **31** configured to receive routing requests from third parties for routing a message from one mobile station to another mobile station and to return routing responses to the third parties; and wherein the virtual network device and the gateway interface device communicate such that, from the point of view of third parties, the intermediary appears to operate a HLR **38** and a MSC **30**. **(Col.3 line 50-Col.4 line 50)**

It would have been obvious to one of ordinary skill in the art to implement the Virtual network device as disclosed by Lam with the mobile phone system as disclosed

by McIntosh in order to implement a virtual mobile switching center within the SA 44 and MSC 30.

With respect to claim 12, Lam and McIntosh discloses the system according to claim 11, however McIntosh continues to disclose wherein the intermediary periodically uploads information including mobile station identifiers of carriers supported by the intermediary to the third parties. [0033]

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The Joensuu reference (US 5,878,347) discloses the routing a data signal to a mobile station within a telecommunications network.

The Granberg reference (US 6,101,382) discloses the transfer of calling party identification in a mobile communication system.

The Wiedeman reference (US 6,128,487) discloses a global mobile paging system.

The Grossman reference (US 6,181,935) discloses a mobility extended telephone application programming interface and method of use.

The Waugh reference (US 6,658,259) discloses a integration scheme for a mobile telephone.

The West reference (US 6,836,477) discloses methods and systems for routing messages in a communications network.

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The McConnel reference (US 6,970,719) discloses a private wireless network integrated with public wireless network.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Chan whose telephone number is (571) 272-0570. The examiner can normally be reached on Mon - Fri (9AM - 5PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on (571)272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Richard Chan
Examiner
Art Division 2618
4/17/06


NAY MAUNG
SUPERVISORY PATENT EXAMINER